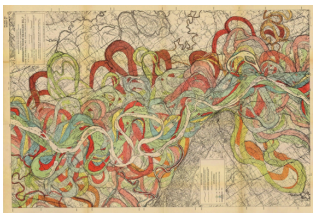

WEEK 4 Day 5

Text Talk
The Changing Mississippi River (slides)
and **Slowing and Preventing Erosion Charts**

Big Ideas	Wind and water can change the shape of the land. People can change the shape of the land. Changes happen over time.
Weekly Question	What is our relationship with water?
Content Objectives	I can recall and explain a specific approach to slowing or preventing erosion. (2-ESS2-1) I can describe a complex map. I can infer and discuss its meaning. (2.T1.1, 2-ESS2-4(MA))
Language Objective	I can use erosion-related vocabulary in context. (L.6.2.a)
SEL Objective	I can effectively communicate my ideas to my peers. (Relationship Skills)
Vocabulary	* **approach**: a way of doing something * **barrier**: something that blocks the way **delta**: the area where a river meets the sea **history**: the study of past events * **prevent**: to stop from happening (*Week 2)
Materials and Preparation	• world map and two pushpins • The Changing Mississippi River slides • projector and screen • printed Mississippi River maps, *The Alluvial Valley of the Lower Mississippi River, Harold Fisk, 1944*, in sheet protectors • chart paper

	Prepare the chart, Slowing and Preventing Erosion, with at least half of the space left empty for work in Week 7. (Five identical charts will be needed over the next few weeks and could be prepared now.) **Slowing and Preventing Erosion** Approach: Reason: Example(s): *Background note:* The Army Corps of Engineers asked Harold Fisk to prepare a geological survey of the lower Mississippi River. He published these maps, along with many, many pages of technical notes. Fifteen in all and published in 1944, they trace the changes in the river from southern Illinois to southern Louisiana. The maps included for this lesson are four different sections of the whole.
Opening 1 minute slide 1	*Yesterday we spent some time along the Nile River in Egypt. Today we're going to look at another river, closer to home.*
Text and Discussion 22 minutes slide 2	Show the map on slide 2. *Have you heard of the Mississippi River? It stretches from the north to the south of the United States.* Mark the north and south ends of the river on the world map. Note that the southern end, where the river flows into the sea, is the river's **delta**.
slide 3	*This is one section of the river, seen from above. What do you notice?* Harvest observations from the group. *About 70 years ago, a man named Harold Fisk was asked to take a close look at the history of the Mississippi River and to write a detailed report about what he found. Along with lots of other kinds*

	of information, such as about the kinds of soil and rock along the river, Harold Fisk drew maps.
slide 4	Allow children time to respond to what they see on the slide. Distribute one printed map to each group. Explain that they will look closely at one section of the map of the entire river [on the slide, right]. *These maps are very different from others we have looked at! What do you think is going on here? Try to use vocabulary words that you have learned so far in our study of landforms and bodies of water to explain your thinking.* Use the Numbered Heads Together routine. Give small groups about five minutes to huddle around the map and discuss what they notice. Bring the whole group back together and discuss impressions. *What do you think is going on in these maps?* Explain: *Based on what he found in the land around the Mississippi River and along the river banks, Harold Fisk mapped how the river had changed over time. Each color on these maps represents a different path the river took at some point in its history.* Be sure to note that Harold Fisk had to be extremely precise to produce these maps.
Key Discussion 16 minutes Slowing and Preventing Erosion chart	*One reason scientists study rivers is to understand how they change naturally over time; then communities can plan for how to use the rivers and build near them.* *When we looked at the Nile River yesterday, we learned about a specific kind of change: salt water eroding the land causes a problem for people growing food.* *What is one thing the people in Egypt are doing to try to solve this problem?* Help children recall the story of Abdullah Salam and the concrete blocks being used to hold back the sea. Show slide 5, if useful. *Today we'll begin keeping track of the different approaches we find to dealing with erosion in different places; often, people do something to slow down or prevent erosion from happening.* Refer to the chart. *Let's fill in this chart with information from our look at the Nile River.*

	We have identified the approach people are trying in Baltim: using concrete blocks as a barrier. We'll write that here. Record "barrier" next to "Approach." *Why are they doing this?* *They are putting up barriers to keep the sea from eroding the beach and bringing more salt water into the farmland. We'll write that on the next line, "Reason."* Record: To keep the sea from eroding the beach, to keep salt water out of the farmland. *This next line is where we will write the specific example of using a barrier in the Nile River Delta.* Record: Nile River Delta.
Closing 1 minute	*We will make other charts as we identify other approaches to erosion, and then we will see which ones work well in certain places.*
Standards	**2.T1.1** Explain the kinds of information provided by components of a map (e.g., compass rose/cardinal directions, scale, key/legend, title) and give examples of how maps can show relationships between humans and the environment (e.g., travel, roads, natural resources, agriculture, mining). **2-ESS2-1.** Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land. **2-ESS2-4(MA).** Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform. **L.6.2.a** Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy, that makes me happy). **SEL.**Relationship Skills
Ongoing assessment	Throughout the lesson, observe and take notes: Do children explain the information from the map? Do they express their ideas to others effectively? Do children contribute their developing understandings to the class discussion, and what vocabulary do they use to do so? Reflect on children's contributions to the Slowing and Preventing Erosion chart. Do children demonstrate emerging understanding that people respond to erosion in particular ways, for particular reasons?